Assessment Schedule – 2021

Economics: Demonstrate understanding of the efficiency of different market structures using marginal analysis (91400)

Assessment Criteria

Achievement	Achievement with Merit	Achievement with Excellence

Demonstrating **understanding** of the efficiency of different market structures using marginal analysis involves:
 	
• providing an explanation of:
 	
  - the efficiency of a market structure
 	
  - the impact of a change in a market on the short- and / or long-run pricing and / or output decisions of a firm using marginal analysis
 	
  - a government policy to improve the efficiency of a monopoly market
 	
  - pricing and output decisions for perfectly competitive and / or monopolist firms using marginal analysis
 	
• using an economic model(s) to illustrate concepts relating to the efficiency of different market structures.
	Demonstrating **in-depth understanding** of the efficiency of different market structures using marginal analysis involves:
	
	• providing a detailed explanation of:
	
	  - the efficiency of a market structure
	
	  - the impact of a change in a market on the short- and / or long-run pricing and / or output decisions of a firm using marginal analysis
	
	  - a government policy to improve the efficiency of a monopoly market
	
	  - pricing and output decisions for perfectly competitive and / or monopolist firms using marginal analysis
	
	• using an economic model(s) to illustrate complex concepts and / or support detailed explanations relating to the efficiency of different market structures.
		Demonstrating **comprehensive understanding** of the efficiency of different market structures using marginal analysis involves:
		
		• comparing and / or contrasting:
		
		  - the efficiency of market structures
		
		  - the impact of a change in a market on the short- and long-run pricing and / or output decisions of a firm using marginal analysis
		
		  - the effectiveness of government policies to improve the efficiency of a monopoly market
		
		• integrating an economic model(s) into explanations relating to the efficiency of different market structures.

Evidence

Q1	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)(i) (ii) (iii)	See Appendix.	Two of: • P_{MC} and Q_{MC} labelled • Subnormal profit shaded and labelled • Consumer surplus shaded and labelled.		
(b)	At P_{MC} and Q_{MC} the natural monopolist is not maximising profits as it is making marginal losses as MC is greater than MR. So if there was no pricing regulation set by the Government it would reduce output and increase the price so that it is operating at the profit-maximising output, where MR = MC.	Explains that the natural monopolist will not operate at P_{MC} and Q_{MC} due to ONE of: • MC is greater than / not equal to MR • marginal losses being made • they will reduce output / increase price / operate to where MC = MR and profits are maximised.	Explains in detail that the natural monopolist will not operate at P_{MC} and Q_{MC} due to TWO of: • MC is greater than / not equal to MR • marginal losses being made • they will reduce output / increase price / operate to where MC = MR and profits are maximised.	Explains in detail that the natural monopolist will not operate at P_{MC} and Q_{MC} due to ALL of: • MC is greater than / not equal to MR • marginal losses being made • they will reduce output / increase price / operate to where MC = MR and profits are maximised.
(c)	See Appendix.	P_2 and Q_2 labelled.		
(d)(i)	Marginal cost pricing would increase consumer surplus as consumers are paying a lower price, (P_2 to P_{MC}), and consuming a greater quantity, (Q_2 to Q_{MC}), compared to the profit-maximising position. So, there are more units from which to gain a surplus and the difference between the price paid and the price consumers are willing to pay has increased. The natural monopolist's profit will decrease from a supernormal to a subnormal profit. This is because at P_{MC} and Q_{MC}, average costs are now greater than average revenue, so total cost is greater than total revenue and the firm is earning less than sufficient to stay in the industry.	Explains: • consumer surplus will increase due to the lower price OR the greater quantity • the economic profit earned by the natural monopolist will now be a subnormal profit.	Explains in detail: • consumer surplus will increase due to the lower price AND the greater quantity • the economic profit earned by the natural monopolist will now be a subnormal as average costs are greater than average revenue (or TC greater than TR).	Explains in detail: • consumer surplus will increase due to the lower price AND the greater quantity. So, there are more units from which to gain a surplus OR the difference between the price paid and the price consumers are willing to pay has increased • the economic profit earned by the natural monopolist will now be subnormal as AC greater than AR and earning

| (ii) | The Government will have to pay a subsidy to keep the natural monopolist operating in the long run. This is because the monopolist is making a subnormal profit, so it is earning less than sufficient to keep them in the industry. The amount of the subsidy will need to be at least as much as the shaded area of subnormal profit indicated on Graph One.

Marginal cost pricing will make the natural monopolist operate where MC = AR. At this price and quantity, (P_{MC} and Q_{MC}), market supply (MC) = market demand (AR), so the market is in equilibrium and the deadweight loss is removed. Hence allocative efficiency will be achieved with a marginal cost pricing regulation. | The Government will have to pay a subsidy to keep the natural monopolist operating in the long run / earning less than sufficient to stay in industry.

Allocative efficiency will be achieved as the natural monopolist will be operating where supply = demand OR the deadweight loss is removed. | The Government will have to pay a subsidy to keep the natural monopolist operating in the long run / earning less than sufficient to stay in industry, as it will be earning a subnormal profit, OR

Allocative efficiency will be achieved as the natural monopolist will be operating where supply = demand AND the deadweight loss is removed. | less than sufficient to stay in industry.

The Government will have to pay a subsidy to keep the natural monopolist operating in the long run / earning less than sufficient to stay in industry, as it will be earning a subnormal profit, AND

Allocative efficiency will be achieved as the natural monopolist will be operating where supply = demand AND the deadweight loss is removed. |

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence.	Most Merit evidence	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to Graph One.		Integrates relevant information from Graph One into answer.	

N0 = No response; no relevant evidence.

Q2	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)(i) (ii)	See Appendix.	Two of: • Market supply curve shifted right with lower price and higher quantity labelled • MR = AR line shifted down to normal profit position and labelled • Lower price and quantity labelled for the firm where MC = new MR		
(b)	See Appendix.	• No change in long-run price and quantity for monopolist clearly indicated.		
(c)	**Perfect competition** Perfect competition is an allocatively efficient market structure as it operates where market supply equals market demand. This results in a market price of P_e and Q_e in the short run, where consumer plus producer surplus is maximised and hence there is no deadweight loss. For the individual firm, as they are a price taker (too small to influence the market price), they will charge the allocative efficient market price and operate where their individual supply (MC) equals their individual demand (AR = MR) The profit for perfect competition will be normal in the long run. This is because more firms will enter the market, attracted by the opportunity to earn supernormal profits and because there are no barriers to entry. As market supply increases (S to S_1 on Graph Two), the price will decrease to P_2, which will decrease the price for the firm to P_{LR}, as they are a price taker. At this price, normal profits are earned as average costs equals average revenue (TR = TC) and each firm is earning just	Explains: • perfect competition is allocatively efficient due to ONE of: - supply = demand - no DWL - each firm is a price taker -total surpluses maximised. • the long-run profit for a perfectly competitive firm will be normal due to ONE of: - market supply increases due to no barriers to entry - price decreases - AC = AR (TC = TR) - each firm is earning just sufficient to stay in the market / nor more incentive to enter market.	Explains in detail: • perfect competition is allocatively efficient due to THREE of: - supply = demand - no DWL - each firm is a price taker -total surpluses maximised • the long-run profit for a perfectly competitive firm will be normal due to THREE of: - market supply increases due to no barriers to entry - price decreases - AC = AR (TC = TR) - each firm is earning just sufficient to stay in the market / no more incentive to enter market.	Compares and contrasts perfect competition AND monopoly.

enough to stay in the industry, and there is no more incentive to enter the market.		
Monopoly		OR
A monopoly is allocatively inefficient as they operate where marginal revenue equals marginal cost, in order to maximise their profits. As MR is below AR for each level of output, the monopolist is not operating where market supply (MC) equals market demand (AR). This creates a deadweight loss at P_4 and Q_4, as consumer surplus plus producer surplus is not maximised. For the monopolist, the supernormal profit can be maintained in the long run due to strong barriers to entry (e.g., high set-up costs, technology, regulations) which prevent other firms from entering the industry and driving down the price.	• a monopoly is allocatively inefficient as it operates where market supply (MC) does not equal market demand (AR) OR as there is a deadweight loss • the long-run profit for a monopolist is supernormal due to strong barriers to entry OR as other firms are prevented from entering the market.	• a monopoly is allocatively inefficient as it operates where market supply (MC) does not equal market demand (AR) AND as there is a deadweight loss • the long-run profit for a monopolist is supernormal due to strong barriers to entry AND so other firms are prevented from entering the market / OR gives examples.

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence for perfect competition OR monopoly.	Most Merit evidence for perfect competition OR monopoly.	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to at least one graph.		Integrates relevant information from both graphs into answer.	

N0 = No response; no relevant evidence.

Q3	Sample evidence	Achievement	Achievement with Merit	Achievement with Excellence
(a)	See Appendix.	AC (only) shifted up and labelled AND no change in price and quantity indicated.		
(b)	See Appendix.	AC and MC shifted up AND decrease in quantity indicated (with no change in price).		

(c)	Fixed costs are costs which are independent of the level of output. So, if the amount produced changes, then these costs will not change (*ceteris paribus*). Examples could be interest, rent, office salaries. Variable costs are dependent on output, so will increase and decrease respectively as the quantity produced increases and decreases. Examples could be wages, material, power. **Increase in fixed costs** There will be no change in the price as each firm is a price taker, as they are too small to influence the market price. Hence, the price will remain at P_1 in the short run. There will also be no change in output as the increase in fixed cost has only increased average costs, with no change in marginal costs. So, the profit-maximising quantity remains at Q_1, where MR = MC. **Increase in variable costs** As with the increase in fixed costs, there will be no change in the price as each firm is a price taker, because they are too small to influence the market price. Hence, the price will remain at P_1 in the short run. However, the profit-maximising / loss minimising output level will decline to Q_2. This is because, at the original output level, Q_1, MC is now greater than MR as the increase in variable costs will increase marginal costs (MC to MC_1) as well as average costs. So, the firm will be making marginal losses if they remain at Q_1, and will hence reduce output to Q_2 where MR = MC_1.	Explains:
		• fixed costs are independent of output OR gives examples of possible fixed costs
		• variable costs are dependent on output OR gives examples of possible variable costs
		• no change in price for increase in fixed costs
		• no change in output for increase in fixed costs as profit maximising point OR MR = MC point OR MC unchanged
		• no change in price for increase in variable costs
		• decrease in output for increase in variable costs due to ONE of:
		  - MC greater than MR
		  - marginal losses being made
		  - profits maximised / losses minimised at lower levels of output where MR = MC_1.
			Explains in detail:
			• fixed costs are independent of output AND gives examples of possible fixed costs
			• no change in price for increase in fixed costs as each firm is a price taker
			• no change in output for increase in fixed costs as TWO of profit maximising point, MR = MC point, MC unchanged
			OR
			• variable costs are dependent on output AND gives examples of possible variable costs
			• no change in price for increase in variable costs as each firm is a price taker
			• decrease in output for increase in variable costs due to ALL of:
			  - MC greater than MR
			  - marginal losses being made
			  - profits maximised / losses minimised at lower levels of output where MR = MC_1.
				Compares and contrasts the increase in fixed costs AND the increase in variable costs.

N1	N2	A3	A4	M5	M6	E7	E8
Very little Achievement evidence.	Some Achievement evidence, partial explanations.	Most Achievement evidence.	Nearly all Achievement evidence.	Some Merit evidence for increase in fixed costs OR increase in variable costs.	Most Merit evidence for increase in fixed costs OR increase in variable costs.	Excellence evidence. One part may be weaker.	All points covered.
				Must refer to Graph Five or Graph Six.		Integrates relevant information from both graphs into answer.	

N0 = No response; no relevant evidence.

Cut Scores

Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
0 – 6	7 - 12	13 - 18	19 – 24

Appendix

Question one (a)(i), (ii), (iii) and (c)
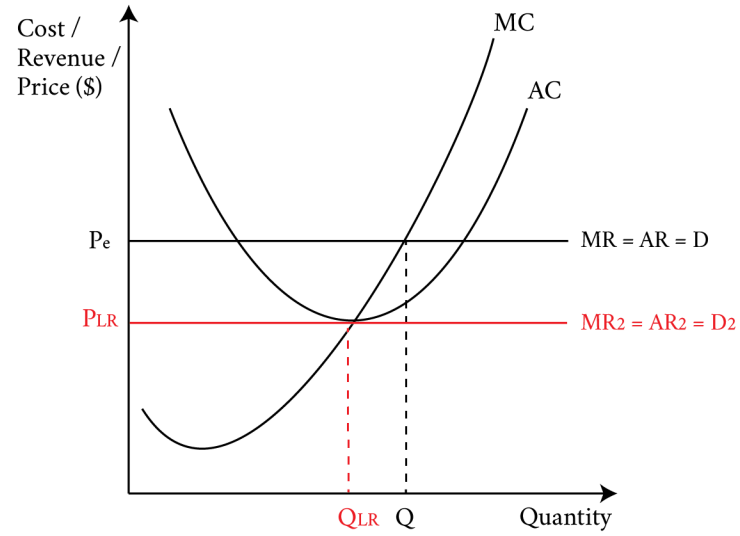
Graph One: A natural monopoly
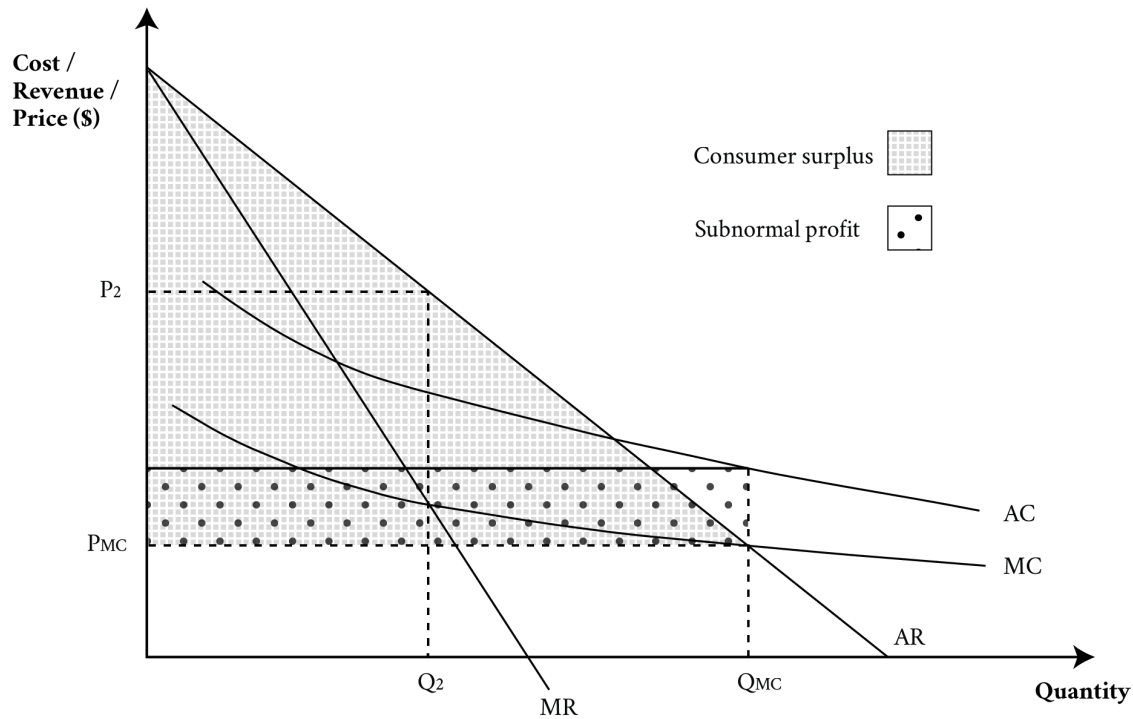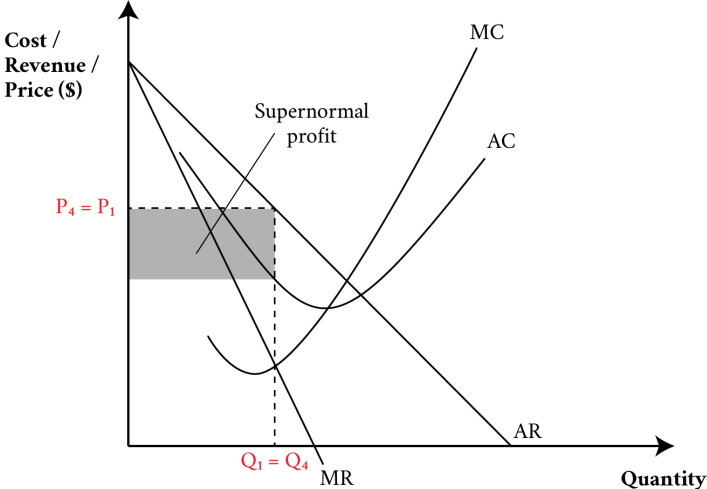
Question two (a)

Graph Two: The market
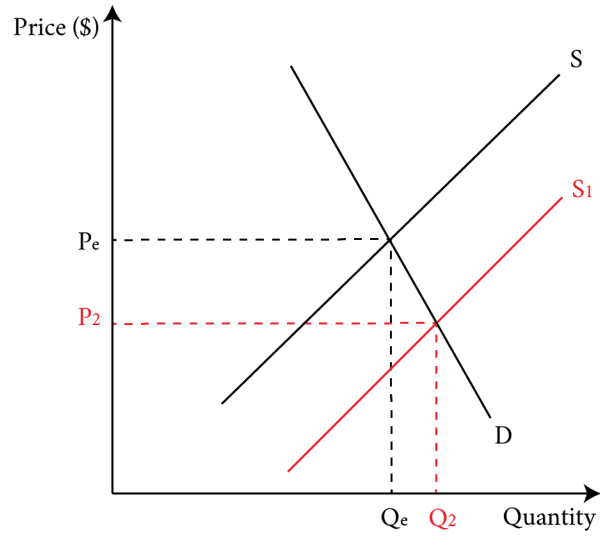
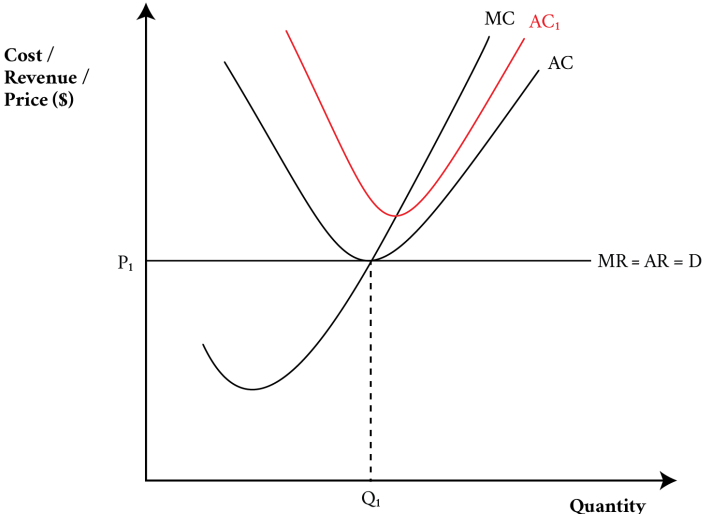**Graph Three: The individual firm**

Question two (b)

Graph Four: A monopolist earning a supernormal profit in the short-run

Question three (a)

Graph Five: A perfectly competitive firm earning a normal profit

Question three (b)

Graph Six: A perfectly competitive firm earning a normal profit